REMARKS

I.   Introduction

Claims 17 to 32 are pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicant notes with appreciation the acknowledgment of the claim for foreign priority and the indication that all copies of the certified copies of the priority documents have been received from the International Bureau.

Applicant thanks the Examiner for considering the Supplemental Information Disclosure Statement, PTO-1449 paper and cited references that were filed on March 17, 2003.

Applicant notes that an initialed copy of the PTO-1449 paper that accompanied the Information Disclosure Statement filed on August 14, 2002 was not included with the Office Action and has not otherwise been returned to Applicant. Courtesy copies of that Information Disclosure Statement and the accompanying PTO-1449 paper, which were printed from the PAIR system, are enclosed herewith.

II.   Rejection of Claims 17 to 32 Under 35 U.S.C. § 103(a)

Claims 17 to 32 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,556,886 ("Riva et al."). Applicant respectfully submits that Riva et al. do not render unpatentable the present claims for the following reasons.

Claim 17 relates to a device for controlling a machine tool. Claim 17 recites that the device includes a processing unit and at least one database having supplementary data that are required for workpiece processing, the database being arbitrarily organized. Claim 17 further recites that the processing unit includes the following functional units: an input interface for a machining program, the interface designed for controlling the machine tool during workpiece processing, the machining program further including database access commands; a database interface to the database; an interpreter unit that processes the database access commands in the machining program so that additionally required supplementary data are retrievable from the database; and a conversion unit that uses the supplementary data retrieved from the database in the further course of the machining to execute the machining program.

Claim 26 relates to a method for controlling a machine tool. Claim 26 recites accessing at least one arbitrarily organized database having supplementary data for the workpiece machining. Claim 26 further recites using a processing unit during the execution of a machining program. Claim 26 further recites processing database access commands with an interpreter unit in the machining program so that additionally required supplementary data are retrieved from the database for further workpiece machining.

Riva et al. purportedly relate to a method and device for controlling a machine tool, in particular, a die-sink erosion machine. Riva et al. describe the architecture of a numerical control system similar to that described in the "Related Technology" section of the present application. Riva et al. mention the use of additional database with abstract tool data and specific tool data, which the Office Action considers to constitute supplementary data, which can be used by the control device in the course of machining different parts. See col. 2, lines 39 to 43. Riva et al. state that the die-sink erosion machine's control system 20 automatically generates a control program for performing a sequence of steps. See col. 8, lines 50 to 53. For this purpose, the data of virtual electrodes (abstract electrode data) are stated to be stored in memory 24, and the data of the real electrodes (specific electrode data) are stated to be stored in memory 25 of control system 20. See col. 8, lines 53 to 57. The geometry and contour data of various machining jobs are furthermore stated to be stored in memory 28, and various technology and process parameter data sets for performing the machining jobs are stated to be stored in databases 30 and 31. See col. 8, lines 57 to 60. An intelligent data generator 26 is stated to automatically determine on the basis of the data of the virtual electrodes from memory 24, the geometry data from memory 28, and the technology and process data from databases 30 and 31, the technology and process parameter data to be used in the work step sequences. See col. 8, lines 60 to 66. At the moment the work step are performed, the interpolator 22 is stated to access the real data stored in memory 25 and is stated to read the data for controlling the electrode movement.

Nowhere do Riva et al. disclose, or even suggest, an arbitrarily organized database that includes supplementary data and database access commands in the machining program, interpreted by an interpreter unit and used to retrieve the additionally required supplementary data from the arbitrarily organized database, as

recited in claims 17 and 26. Applicant respectfully submits that Riva et al. access the various memories, i.e., databases, in a standard manner. Namely, the control system is programmed to pull information from predetermined known locations in a database, whose organizational structure is defined and known, i.e., not arbitrary, as recited in claims 17 and 26. Figure 3, for example, is stated to show the data organization of an electrode family. See col. 7, lines 18 to 19. In contrast, the Specification of the present application makes clear that the accessing of an "arbitrarily organized" database is done without knowledge of the specific line-by-line or tabular organization of the database and using only knowledge of the type of data to be ultimately extracted from the database. See p. 4, lines 17 to 24 of the Specification. Consistently, Riva et al. do not discuss accessing data in the memories of arbitrarily organized databases, using, for example, special database access command.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). As more fully set forth above, Riva et al. do not disclose, or even suggest, all of the limitations of claims 17 and 26. Therefore, it is respectfully submitted the Riva et al. do not render unpatentable claims 17 and 26.

The Office Action alleges at p. 3 that "the claimed limitations of the provided application mostly [sic] inherent [in] Riva et al." To the extent that the Examiner is relying on the doctrine of inherency, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flows from the teachings of the applied art." See M.P.E.P. § 2112; emphasis in original; and see, Ex parte Levy, 17

U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. That is, "[i]nherency . . . may not be established by probabilities or possibilities[, and t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient." Ex parte Skinner, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Inter. 1986). The Office Action provides no detail whatsoever as to which specific claim elements Riva et al. are considered to inherently disclose. As indicated above, the initial burden of presenting a prima facie case of obviousness rests on the Examiner. The unsupported and conclusory allegations of inherency do not substitute for the lack of a disclosure or suggestion of all of the claim limitations by Riva et al. In view of all of the foregoing, it is respectfully submitted that the Office Action has not properly established a prima facie case of obviousness, for which the Examiner bears the initial burden.

As for claims 18 to 25, which ultimately depend from claim 17 and therefore include all of the limitations of claim 17, it is respectfully submitted that Riva et al. do not render unpatentable these dependent claims for at least the same reasons provided above in support of the patentability of claim 17. In re Fine, supra (any dependent claim that depends from a non-obvious independent claim is non-obvious).

As for claims 27 to 32, which ultimately depend from claim 26 and therefore include all of the limitations of claim 26, it is respectfully submitted that Riva et al. do not render unpatentable these dependent claims for at least the same reasons provided above in support of the patentability of claim 26. Id.

Therefore, for all of the foregoing reasons, withdrawal of this rejection is respectfully requested.

III.   Conclusion

Applicant respectfully submits that all of the pending claims of the present application are now in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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